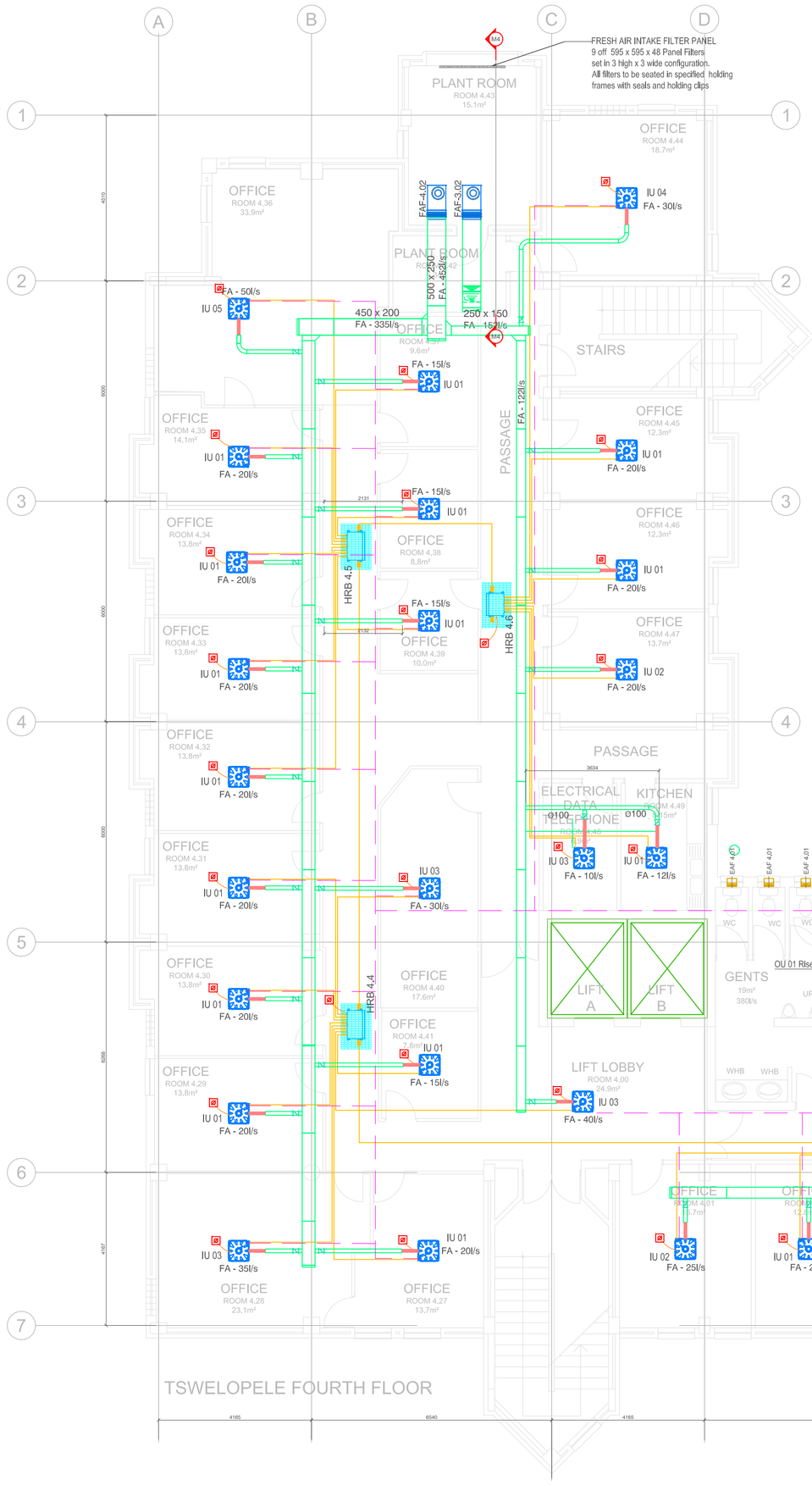

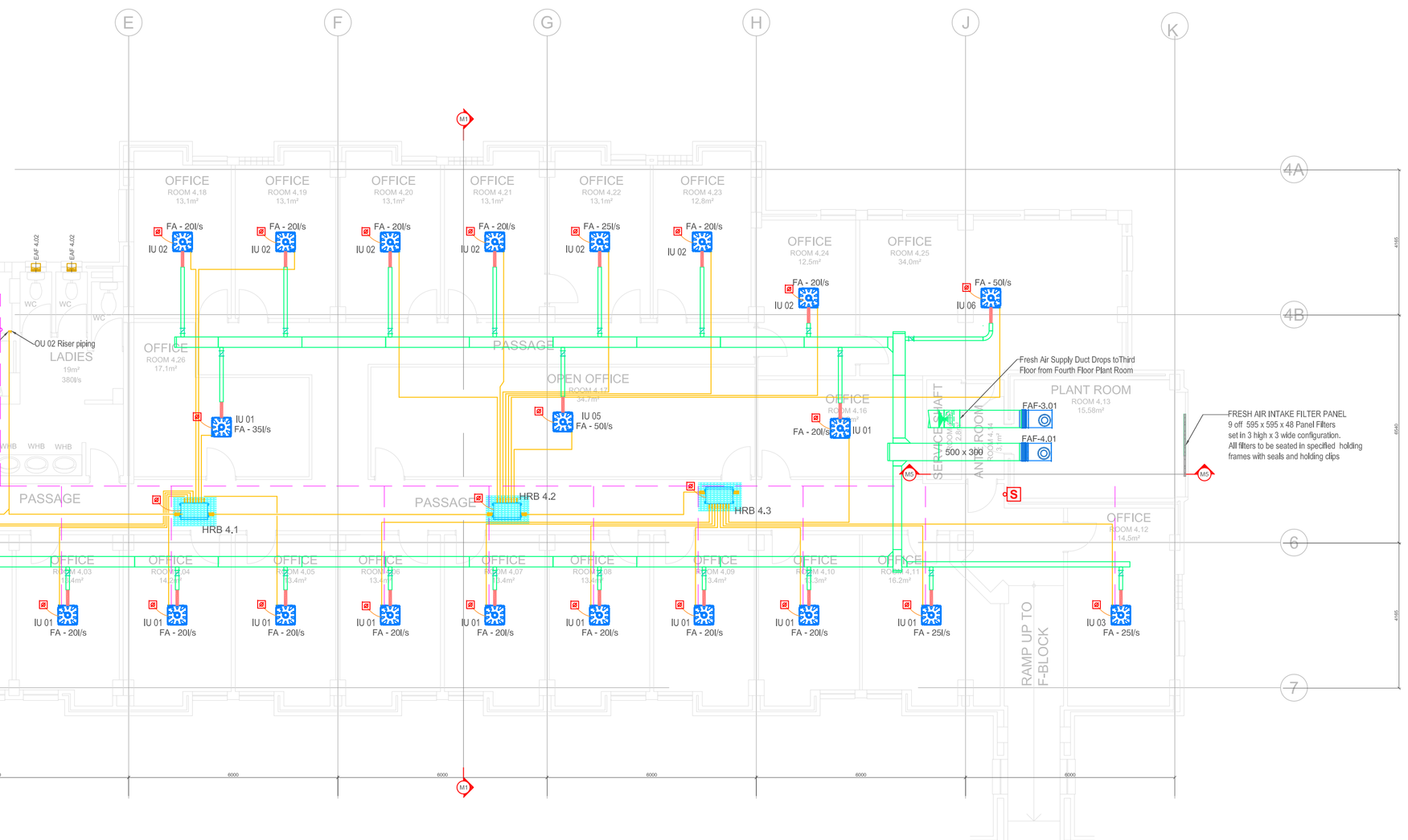

FOURTH FLOOR INTERNAL TERMINAL UNIT SCHEDULE

UNIT REF.	No. OFF	DESCRIPTION	COOLING CAPACITY (kW)	HEATING CAPACITY (kW)	AIR QTY. (l/s Each)	MASS (kg)	POWER REQUIREMENTS (V / Ph / Hz)	POWER REQUIREMENTS FLA (Amps)
IU 01	27	*4 WAY BLOW CASSETTE UNIT	2.20	2.50	125.00	12.60	230 / 1 / 50	0.200
IU 02	9	*4 WAY BLOW CASSETTE UNIT	2.80	3.20	133.30	13.70	230 / 1 / 50	0.200
IU 03	5	*4 WAY BLOW CASSETTE UNIT	3.60	4.00	145.00	13.70	230 / 1 / 50	0.200
IU 04	1	*4 WAY BLOW CASSETTE UNIT	4.50	5.00	183.30	15.00	230 / 1 / 50	0.200
IU 05	2	*4 WAY BLOW CASSETTE UNIT	5.60	6.30	187.00	15.00	230 / 1 / 50	0.200
IU 06	1	*4 WAY BLOW CASSETTE UNIT	7.10	8.00	383.30	27.00	230 / 1 / 50	0.200
IU 07	0	*CEILING CONCEALED DUCTED UNIT	22.40	25.20	1000.00	87.00	380/3/50	5.200
IU 08	0	*CEILING CONCEALED DUCTED UNIT	28.10	31.50	1200.00	87.00	380 / 3 / 50	5.200

*LG ELECTRONICS, DAIKIN, MITSUBISHI OR EQUAL AND APPROVED

FOURTH FLOOR FRESH AIR SUPPLY FAN SCHEDULE

UNIT REF.	No. OFF	DESCRIPTION	AIR QTY. (l/s each)	PRESSURE (Pa)	FAN SPEED (RPM)	POWER REQUIREMENTS (V / Ph / Hz)	POWER REQUIREMENTS ABSORBED (kW)
FAF-401	1	*VKPF FD 500 x 300.4	545.00	125	932	230 / 1 / 50	0.085
FAF-4.02	1	*VKPF FD 500 x 300.4	487.00	120	800	230 / 1 / 50	0.085

*AMS, LUFT, DONKIN OR SIMILAR APPROVED

FOURTH FLOOR EXTRACT AIR FAN SCHEDULE

UNIT REF.	No. OFF	DESCRIPTION	AIR QTY. (l/s each)	PRESSURE (Pa)	FAN SPEED (RPM)	POWER REQUIREMENTS (V / Ph / Hz)	POWER REQUIREMENTS ABSORBED (kW)
EAF-4-01	3	*GX9 EXTRACT AIR FAN - SET ON LOW	151.00	-----	-----	230 / 1 / 50	0.085
EAF-4-02	2	*GX9 EXTRACT AIR FAN - SET ON HIGH	171.00	-----	-----	230 / 1 / 50	0.085
DG-01	1	*DOOR GRILLE - 300x300 NECK SIZE	-----	-----	-----	-----	-----
DG-02	1	*DOOR GRILLE - 500x500 NECK SIZE	-----	-----	-----	-----	-----

*XPELAIR OR SIMILAR APPROVED

ALL DIMENSIONS AND HEIGHTS ARE TO BE CHECKED ON SITE BEFORE WORK IS PUT IN HAND.
ALL WORK AND MATERIAL ARE TO COMPLY TO RELEVENT SABS CODES WHERE APPLICABLE.
BRAND NAMES DENOTE SIMILAR &/OR EQUALY APPROVED.
ALL WORK TO BE IN ACCORDANCE TO N.R.B.
REPORT DISCREPANCIES TO ARCHITECT OR ENGINEER.

GENERAL NOTES:
- ALL DIMENSIONS TO BE CHECKED ON SITE BEFORE ANY WORK IS PUT IN HAND.
- ALL WORK TO COMPLY TO LOCAL MUNICIPAL BY- LAWS.
- HVAC SUB-CONTRACTOR IS RESPONSIBLE TO ENSURE ALL CO-ORDINATION & CORRECT DIMENSIONING OF DRAWINGS IS DONE WITH ALL OTHER RESPECTIVE CONTRACTORS PRIOR TO PROCUREMENT & INSTALLATION.
- QUALITY MUST BE ADHERED TO ALL STANDARDS AS PER TENDER SPECIFICATIONS

HVAC NOTES:
1. THIS DRAWING FORMS PART OF THE SPECIFICATION AND MUST BE READ IN CONJUNCTION WITH THE SAME.
2. ALL DUCTWORK TO BE MANUFACTURED IN ACCORDANCE WITH ABS-1238-1979 LOW VELOCITY DUCT STANDARDS.
3. ALL DUCT SIZES SHOWN ARE ACTUAL SHEETMETAL SIZES.
4. SUPPLY DUCTS TO BE EXTERNALLY INSULATED WITH 25mm FRK. INSULATION - UNLESS OTHERWISE SPECIFIED.
5. ALL OTHER DUCTS TO BE UNINSULATED, UNLESS SPECIFIED.
6. ALL EXPOSED DUCTS TO BE PAINTED TO SPECIFICATION.
7. ALL DUCTS WITH SEMI-PERIMETER OF 1150mm OR LESS TO BE "S & DRIVE" JOINTS, AND DUCTS ABOVE TO BE MEZZ FLANGED.
8. ALL BENDS TO HAVE INTERNAL RADIUS OF 150mm AND SPLITTERS UNLESS OTHERWISE SPECIFIED.
9. ALL ROUND DUCT BENDS UP TO Ø500mm TO HAVE A RADIUS OF 200mm + OVER Ø500mm TO HAVE A RADIUS OF 300mm.
10. DUCT SHOES TO BE 150mm LONG @ 45°.
11. SPIGOTS TO BE 100mm LONG, UNLESS OTHERWISE STATED.

HVAC BUILDERSWORK:
12. ALL OPENINGS TO BE 100mm BIGGER THAN DUCT SIZES SHOWN (BUILDER TO MAKE GOOD AFTER DUCTS ARE INSTALLED).
13. ALL OPENINGS TO BE 50mm BIGGER THAN GRILLE SIZES SHOWN WHICH INCLUDES A 25mm THK. TIMBER FRAME ALL AROUND OPENING - BY BUILDER.
14. SLEEVES IN WALLS, SLABS & BEAMS (SIZE SHOWN ON DRAWING) (BUILDER TO MAKE GOOD AFTER DUCTS ARE INSTALLED).

LEGEND:

	400V / 3PH / 50HZ POWER SUPPLY TERMINATING IN ISOLATOR WITHIN ONE METER OF EQUIPMENT - BY ELECTRICIAN.
	230V / 1PH / 50HZ POWER SUPPLY TERMINATING IN ISOLATOR WITHIN ONE METER OF EQUIPMENT - BY ELECTRICIAN.
	DOOR TO BE UNDERCUT BY 25mm MINIMUM - BY BUILDER
T	WALL MOUNTED THERMOSTAT AT 1350 AFFL. (c/w Ø25mm CONDUIT AND 4x4 BOX IN WALL) - BY ELECTRICIAN AND BUILDER)
S	WALL MOUNTED ON/OFF SWITCH AT 1350 AFFL. (c/w Ø25mm CONDUIT AND 4x4 BOX IN WALL) - BY ELECTRICIAN AND BUILDER)

ABBREVIATIONS:

DG	DOOR GRILLE
EAD / G	EXTRACT AIR DIFFUSER OR GRILLE
TG	TRANSFER GRILLE
WL	WEATHER LOUVRE
MOS	MEASURE ON SITE
NTS	NOT TO SCALE
TRF	TRANSFORMATION OF DUCT
WMS	WIRE MESH SCREEN
c/w	COMPLETE WITH

LINE TYPE LEGEND:
- CONDENSATE DRAIN PIPE
- REFRIGERATION PIPE
- CENTRE LINE
- FLEXIBLE DUCT
- ELECTRICAL CABLE

TENDER

REV No	DATE :	DESCRIPTION:
A	22.11.2021	ISSUED FOR CLIENT'S APPROVAL
B	11.02.2022	ISSUED FOR TENDER

SIZE ON ORIGINAL DRAWING 100 mm

CLIENT LOGO

UNISA university of south africa

UNIVERSITY OF SOUTH AFRICA
FLORIDA CAMPUS
28 PIONEER STREET,
FLORIDA PARK,
ROODEPOORT

PROJECT DETAILS
UNIVERSITY OF SOUTH AFRICA
FLORIDA CAMPUS
TSWELOPELE BUILDING (BLOCK 'E')
HEATING, VENTILATION &
AIR CONDITIONING

CONTRACT No
TCE 1167

DISCIPLINE
MECHANICAL

DRAWING DESCRIPTION
FOURTH FLOOR HVAC LAYOUT

DESIGNED BY	DRAWN BY	CHECKED BY
HN	KO	HN

DRAWING UNITS	mm	SCALE	1:100

RESPONSIBLE PROFESSIONAL

DATE	NAME	SIGNATURE	PR NUMBER
11.02.2022	VINAY RAMSUNDARA		2018300310

Thembakele CONSULTING ENGINEERS (PTY) LTD
UNIT 6, GARDENS BUSINESS PARK
ATELJEE STREET
RANDPARK RIDGE, 2156
Web address: www.thembakele.co.za
Telephone: 011 475 4560
Facsimile: 011 475 9140

SIZE	DRAWING NUMBER	REV
A1	TCE-1167-M-TD-AC-006	B

FOR TENDER